AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior listings and versions of claims in the application.

CLAIMS:

1-31 (canceled)

32. (new) A method for analyzing microRNA, comprising:

a) contacting microRNA with a probe to form an RNA detection structure, wherein said probe comprises a first region that is complementary to said microRNA and a second region that is not complementary to said microRNA, wherein said second region can form a hairpin loop when said probe is hybridized to said microRNA; and

b) detecting said RNA detection structure.

33. (new) The method of claim 32, wherein said detecting comprises quantitating said microRNA.

34. (new) The method of claim 32, wherein said detecting comprises forming an invasive cleavage structure, cleaving said invasive cleavage structure, and detecting the cleavage of said invasive cleavage structure.

35. (new) The method of claim 32, wherein said detecting comprises use of a detection assay that employs sequence analysis.

36. (new) The method of claim 32, wherein said detecting comprises use of a detection assay that employs polymerase chain reaction.

37. (new) The method of claim 32, wherein said detecting comprises use of a detection assay that employs microarray hybridization.

38. (new) The method of claim 32, wherein said detecting comprises use of a detection assay that employs ligation.

39. (new) The method of claim 32, wherein said detecting comprises use of a labeled probe.

40. (new) The method of claim 39, wherein said labeled probe is fluorescently labeled.

41. (new) The method of claim 39, wherein said labeled probe is configured for FRET detection.

42. (new) The method of claim 41, wherein said labeled probe has a first conformation when not hybridized in a duplex and a second conformation when hybridized in a duplex.

43. (new) The method of claim 41, wherein said labeled probe exhibits increased fluorescence when hybridized in a duplex.

44. (new) The method of claim 32, wherein said detecting comprises use of a detection assay that employs polymerase chain reaction coupled with 5' nuclease cleavage of a labeled probe.

45. (new) The method of claim 44, wherein said labeled probe is fluorescently labeled.

46. (new) The method of claim 44, wherein said labeled probe is configured for FRET detection upon cleavage.

47. (new) The method of claim 32, wherein said detecting comprises exposing said RNA detection structure to a polymerase under conditions that permit primer extension.

48. (new) The method of claim 32, wherein said detecting comprises determining the presence of said microRNA in a sample.

49. (new) The method of claim 48, wherein said detecting comprises distinguishing said microRNA from another nucleic acid in said sample.

50. (new) The method of claim 49, wherein said sample comprises a cell lysate.

51. (new) The method of claim 32, wherein said microRNA is approximately 21-22 nucleotides in length.

52. (new) The method of claim 32, wherein a plurality of different microRNAs are detected.

53. (new) The method of claim 52, wherein said plurality of microRNAs comprise a first microRNA and a second microRNA that is said first microRNA having a polymorphism.

54. (new) The method of claim 32, wherein said microRNA is selected from the group consisting of Let-7, miR-1, miR-135, miR-15, miR-16, miR125b, miR-1d, and miR124a.

55. (new) The method of claim 32, wherein at least a portion of said RNA detection structure comprises a nucleotide analog.

56. (new) The method of claim 32, wherein at least a portion of said RNA detection structure comprises a peptide nucleic acid.